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PATENTS

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Atty's Docket No: 2936.166/00

Applicant(s) : Timo Hillebrand et al.

Filed : Concurrently herewith

For : Formulations and Method for Isolating Nucleic Acids from Optional Complex Starting Materials and Subsequent Complex Gene Analytics

PRELIMINARY AMENDMENT

Hon. Assistant Commissioner of Patents
Washington, D.C. 20231

Dear Sir:

Prior to examination, please amend the application as follows:

**IN THE CLAIMS**

Please amend the following claims:

Claim 2, line 3, please delete "preferably ammonium chloride";

3. (amended) Formulations according to [claims 1 or 2] claim 1, wherein the lysis/binding buffer system contains detergents and additive [,if necessary].

Claim 4, line 1, please insert a comma (,) after "claim 3";

Claim 5, line 1, please delete "claims 1-4" and insert --claim 1,--;

6. (amended) Formulations according to [claims 1 to 5] claim 1, wherein the lysis/binding buffer system contains enzymes [, preferably degrading proteins degrading enzymes].

Claims 7 and 8, line 1, please delete "claims 1-6" and insert --claim 1,--;

9. (amended) Formulations according to [claims 1 to 8] claim 1, wherein all carriers serve as a solid phase which were used for isolation by means of chaotropic reagents, [preferably] glass fiber mats, glass membranes, glasses, zeolites, ceramics, silica carriers.

Claim 10, line 1, please delete "claims 1-8" and insert --claim 1,--;

Claim 11, line 1, please insert a comma (,) after "claim 10";

12. (amended) Method for isolating nucleic acids, in particular DNA, from optional complex starting materials using formulations according to [one of the claims 1 to 9] claim 1, wherein the starting material is lysed,
nucleic acids bound to a solid phase,

Q4cont. the nucleic acids bound to the carrier are washed and an elution of the nucleic acids is effected.

13. (amended) Method for isolating nucleic acids according to claim 12, wherein the material containing DNA

- is treated with a lysis/binding buffer system comprising an aqueous solution which contains an antichaotropic salt component, contains at least a detergent, [and if necessary, additives, and if necessary, a proteolytic enzyme] and
- is brought into contact with a solid phase, [if necessary, with adding alcohol]
- is washed subsequently and the nucleic acid is dissolved from the solid phase.

14. (amended) Method according to claim 13, wherein starting materials are chosen from the group consisting of compact plant materials, [such as fruits; seeds; leaves; needles etc. clinically relevant samples such as] whole blood; tissue; microbioptate, paraffine-coated materials, ercp-samples, swabs, foodstuffs [such as fish, sausage, tins, mild, forensic samples such as] hair roots, cigarette butts[,] and blood stains [and other samples containing DNA].

Claim 15, line 1, please delete "claims 12-14" and insert --claim 12,--;

Q5

16. (amended) Method for isolating nucleic acids, in particular DNA, from optional complex starting materials with such formulations according to [one of the claims 1 to 8 and 10 to 11] claim 1, wherein

- the starting material is in a "single tube" or one step method chemically modified, brought into contact and lysed with a negatively [functionalised] functionalized surface or its surface in a way that it may be converted to a negative charge potential,
- the binding of the nucleic acid to the surface is effected,
- the bound nucleic acid is washed [and, if necessary, eluted].

Claim 17, line 1, please insert a comma after "claim 16";

Q6

18. (amended) Method according to [claims 16 and 17] claim 16, wherein the nucleic acid is subsequently subjected to an amplification reaction of selected sequence sections in the same reaction batch [and, if necessary, thereupon the gene sequences are analysed].

Claim 19, line 1, please delete "claims 16 and 17" and insert --claim 16,--;

Please cancel claims 20 to 25.

Please add the following new claims:

26. (new) Formulations according to claim 1, wherein the antichaotropic component is ammonium chloride.

27. (new) Formulations according to claim 1, wherein the lysis/binding buffer system contains degrading proteins degrading enzymes.

**REMARKS**

The above amendments were to place the application into proper United States patent format. Early and favorable consideration is earnestly solicited.

Respectfully Submitted,

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